

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Allan Sponseller on 6/4/10.

The application has been amended as follows:

Claim 24. (Currently amended) A non-transitory machine-readable storage medium having stored thereon instructions execution of which, by a computing device, causes the computing device to perform operations comprising:

displaying, via a graphical user interface (GUI), a graphical representation of a network including a first media aggregation manager and a second media aggregation manager, wherein the first and second media aggregation managers are configured to:

establish a single reservation protocol session that reserves bandwidth from a plurality of routers along a first of a plurality of paths between the first and second media aggregation managers;

allocate the reserved bandwidth among a plurality of application sessions, each of which is between one of a first plurality of communication devices coupled to the first media aggregation manager and one of a second plurality of communication devices coupled to the second media aggregation manager;

displaying, via the GUI, a first projected link utilization illustrating predicted bandwidth usage for the plurality of routers along the first path; and in response to receiving input via the GUI selecting the first projected link utilization, instructing the first and second media aggregation managers to establish the single reservation protocol session by reserving bandwidth from each of the plurality of routers along the first path.

Claim 25. (Currently amended) The non-transitory machine-readable storage medium of claim 24, wherein the established reservation protocol session is a resource reservation protocol (RSVP) session.

Claim 74. (Currently amended) The non-transitory machine-readable storage medium of claim 24, wherein the operations further include displaying one or more additional projected link utilizations illustrating predicted bandwidth for a plurality of additional routers along one or more others of the plurality of paths, wherein the first projected link utilization and the one or more additional projected link utilizations are displayed in a prioritized order based upon one or more factors.

Claim 75. (Currently amended) The non-transitory machine-readable storage medium of claim 74, wherein the one or more factors include one or more of the following:

- a number of nodes in a path;
- total available bandwidth for a path;
- available communications bandwidth on a path;
- propagation speed between nodes that make up a path; or

physical length of travel between nodes that make up a path.

Claim 84. (Currently amended) A non-transitory machine-readable storage medium having stored thereon instructions execution of which, by a computing device, causes the computing device to perform operations comprising:

displaying, via a graphical user interface, a graphical representation of a network including a first network device at an edge of a first local area network and a second network device at an edge of a second local area network, wherein the first local area network includes a first set of terminals running a first set of local applications, wherein the second local area network includes a second set of terminals running a second set of local applications, wherein the first set of terminals is coupled to the second set of terminals via a plurality of paths including a first path, and wherein the first and second networking devices are configured to:

act as a signaling and control proxy for the first and second local area networks, respectively;

serve as reservation session aggregation points on behalf of the first and second sets of terminals, respectively;

displaying, via the GUI, a first projected link utilization illustrating predicted bandwidth usage for a plurality of routers along the first path; and

in response to receiving input via the GUI selecting the first projected link utilization, instructing the first and second network devices to establish a single reservation protocol session by reserving bandwidth from each of the plurality of routers along the first path.

Claim 85. (Currently amended) The non-transitory machine-readable storage medium of claim 84, wherein the established reservation protocol session is a resource reservation protocol (RSVP) session.

Claim 86. (Currently amended) The non-transitory machine-readable storage medium of claim 84, wherein the operations further include, via the GUI, a second projected link utilization illustrating predicted bandwidth usage for a plurality of routers along a second of the plurality of paths.

Claim 87. (Currently amended) The non-transitory machine-readable storage medium of claim 84, wherein the first and second projected link utilizations are displayed in a prioritized order based upon one or more of the following factors:

- a number of nodes in the first path or the second path;
- total available bandwidth for the first path or the second path;
- available communications bandwidth on the first path or the second path;
- propagation speed between nodes that make up the first path or the second path; or
- physical length of travel between nodes that make up the first path or the second path.

Claim 89. (Currently amended) The non-transitory machine-readable storage medium of claim 24, wherein one of the plurality of application sessions is an Internet telephony session.

Claim 92. (Currently amended) The non-transitory machine-readable storage medium of claim 84, wherein each of the first and second sets of local applications

includes an Internet telephony application, and wherein each of the first and second sets of terminals includes at least one telephone device.

Claim 98. (Currently amended) A non-transitory machine-readable storage medium having stored thereon instructions execution of which, by a first media aggregation device within a network, causes the first media aggregation device to perform operations comprising:

receiving a request from a computer system to establish a single reservation protocol session between the first media aggregation device and a second media aggregation device within the network, wherein the request is received from a program running on the computer system that displays, via a graphical user interface (GUI) a projected link utilization illustrating predicted bandwidth usage for a plurality of routers along a first path of a plurality of paths between the first and second media aggregation devices, and wherein the program permits a user to select, via the GUI, the projected link utilization in order to cause the reservation protocol session to be established;

in response to receiving the request, establishing the single reservation protocol session by reserving bandwidth from a plurality of routers along the first path; and

allocating the reserved bandwidth among a plurality of application sessions, each of which is between one of a first plurality of communication devices coupled to the first media aggregation device and one of a second plurality of communication devices coupled to the second media aggregation device.

Claim 99. (Currently amended) The non-transitory machine-readable storage medium of claim 98, wherein the established reservation protocol session is a resource reservation protocol (RSVP) session.

Claim 100. (Currently amended) The non-transitory machine-readable storage medium of claim 98, wherein said allocating includes:

receiving a request for an amount of bandwidth from one of the plurality of application sessions; and

in response to determining that the requested amount of bandwidth is available along the first path, allocating the requested amount of bandwidth to the application session.

Claim 101. (Currently amended) The non-transitory machine-readable storage medium of claim 98, wherein the program further permits a user to request that the established reservation protocol session be torn down after the reservation protocol session has been established, and wherein the operations further comprise:

receiving, from the program, an additional request to tear down the established reservation protocol session; and

in response to receiving the additional request, tearing down the established reservation protocol session.

Claim 102. (Currently amended) The non-transitory machine-readable storage medium of claim 98, wherein one of the plurality of application sessions is an Internet telephony session.

Claim 103. (Currently amended) The non-transitory machine-readable storage medium of claim 84, wherein the first and second network devices are configured to:

receive requests from the first and second sets of local applications to communicate via the first path; and

in response to the received requests, allocate the reserved bandwidth among the first and second sets of local applications.

Claim 121. (Currently amended) A non-transitory machine-readable storage medium having stored thereon instructions execution of which, by a computing device, causes the computing device to perform operations comprising:

displaying, via a graphical user interface (GUI), a graphical representation of a network including a first media aggregation manager and a second media aggregation manager, wherein the first and second media aggregation managers are configured to:

establish a single reservation protocol session that reserves bandwidth from a plurality of routers along a first of a plurality of paths between the first and second media aggregation managers;

allocate the reserved bandwidth among a plurality of application sessions, each of which is between one of a first plurality of communication devices coupled to the first media aggregation manager and one of a second plurality of communication devices coupled to the second media aggregation manager; and in response to receiving input via the GUI requesting to de-allocate the single reservation protocol session that has been established between the first and second

media aggregation managers, instructing the first and second media aggregation managers to de-allocate the established single reservation protocol session;

wherein the single reservation protocol session has been established in response to input received via the GUI selecting a projected link utilization illustrating predicted bandwidth usage for the plurality of routers along the first of the plurality of paths.

Claim 122. (Currently amended) The non-transitory machine-readable storage medium of claim 121, wherein the single reservation protocol session is a resource reservation protocol (RSVP) session.

Claim 123. (Cancelled)

Claim 124. (Currently amended) A method comprising:
receiving, at a first media aggregation device within a network, a request to de-allocate an established single reservation protocol session between the first media aggregation device and a second media aggregation device within the network, wherein the established single reservation protocol session reserves bandwidth from a plurality of routers along a path of a plurality of paths between the first and second media aggregation devices, wherein a graphical user interface (GUI) presents a projected link utilization illustrating predicted bandwidth usage for the plurality of routers along the path, and wherein the user selects, via the GUI, the projected link utilization in order to cause the established reservation protocol session to have been established, and wherein the request to de-allocate is received via the a graphical user interface (GUI) GUI that presents a representation of the network including the first and second media

aggregation devices, and wherein a user selects, via the GUI, the established reservation protocol session from the representation of the network; and
in response to receiving the request to de-allocate, instructing the first and second media aggregation devices to de-allocate the established single reservation protocol session.

Claim 125. (Cancelled)

Claim 126. (Currently amended) A first media aggregation device comprising:
a processor; and
a machine-readable storage medium having stored thereon instructions execution of which by the processor causes the first media aggregation device to perform operations comprising:

receiving a request to de-allocate an established single reservation protocol session between the first media aggregation device and a second media aggregation device within a network, wherein the established single reservation protocol session reserves bandwidth from a plurality of routers along a path of a plurality of paths between the first and second media aggregation devices, and wherein the request to de-allocate is received via a graphical user interface (GUI) that presents a representation of the network including the first and second media aggregation devices, and wherein the user selects, via the GUI, the established reservation protocol session from the representation of the network;
and

in response to receiving the request to de-allocate, instructing the first and second media aggregation devices to de-allocate the established single reservation protocol session;

wherein the GUI presents a projected link utilization illustrating predicted bandwidth usage for the plurality of routers along the path, and wherein the user selects, via the GUI, the projected link utilization in order to cause the established reservation protocol session to have been established.

Claim 127. (Cancelled)

2. Claims 4, 5, 24, 25, 72-79, 84-90, 92, 98-122, 124 and 126 are allowed.
3. The following is an examiner's statement of reasons for allowance: The use of a graphical user interface to select from a plurality of potential reservation paths, and reserving bandwidth along a path based upon its selection from the GUI is not taught in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R. Swearingen
Examiner
Art Unit 2445

/J. R. S./
Examiner, Art Unit 2445

/VIVEK SRIVASTAVA/
Supervisory Patent Examiner, Art Unit 2445